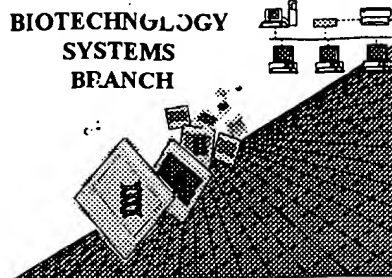


RAW SEQUENCE LISTING **ERROR REPORT**



The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 09/848,834

Source: OIP

Date Processed by STIC: 5/15/2001

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,**
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY**

FOR CRF SUBMISSION QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

FOR SEQUENCE RULES INTERPRETATION, PLEASE CONTACT ROBERT WAX, 703-308-4216.

PATENTIN 2.1 e-mail help: patin21help@uspto.gov or phone 703-306-4119 (R. Wax)

PATENTIN 3.0 e-mail help: patin3help@uspto.gov or phone 703-306-4119 (R. Wax)

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 3.0 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW:

Checker Version 3.0

The Checker Version 3.0 application is a state-of-the-art Windows based software program employing a logical and intuitive user-interface to check whether a sequence listing is in compliance with format and content rules. Checker Version 3.0 works for sequence listings generated for the original version of 37 CFR §§1.821 – 1.825 effective October 1, 1990 (old rules) and the revised version (new rules) effective July 1, 1998 as well as World Intellectual Property Organization (WIPO) Standard ST.25.

Checker Version 3.0 replaces the previous DOS-based version of Checker, and is Y2K-compliant. Checker allows public users to check sequence listings in Computer Readable form (CRF) before submitting them to the United States Patent and Trademark Office (USPTO). Use of Checker prior to filing the sequence listing is expected to result in fewer errored sequence listings, thus saving time and money.

Checker Version 3.0 can be down loaded from the USPTO website at the following address:
<http://www.uspto.gov/web/offices/pac/checker>

Raw Sequence Listing Error Summary

ERROR DETECTED SUGGESTED CORRECTION

SERIAL NUMBER: 09/848,834

ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE

- 1 ☐ Wrapped Nucleics The number/text at the end of each line "wrapped" down to the next line.
This may occur if your file was retrieved in a word processor after creating it.
Please adjust your right margin to .3, as this will prevent "wrapping".
- 2 ☐ Wrapped Aminos The amino acid number/text at the end of each line "wrapped" down to the next line.
This may occur if your file was retrieved in a word processor after creating it.
Please adjust your right margin to .3, as this will prevent "wrapping".
- 3 ☐ Incorrect Line Length The rules require that a line not exceed 72 characters in length. This includes spaces.
- 4 ☒ Misaligned Amino Acid Numbering The numbering under each 5th amino acid is misaligned. This may be caused by the use of tabs between the numbering. It is recommended to delete any tabs and use spacing between the numbers.
- 5 ☐ Non-ASCII This file was not saved in ASCII (DOS) text, as required by the Sequence Rules.
Please ensure your subsequent submission is saved in ASCII text so that it can be processed.
- 6 ☐ Variable Length Sequence(s) ☐ contain n's or Xaa's which represented more than one residue.
As per the rules, each n or Xaa can only represent a single residue.
Please present the maximum number of each residue having variable length and indicate in the (ix) feature section that some may be missing.
- 7 ☐ PatentIn ver. 2.0 "bug" A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequence(s) ☐. Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. This applies primarily to the mandatory <220>-<223> sections for Artificial or Unknown sequences.
- 8 ☐ Skipped Sequences (OLD RULES) Sequence(s) ☐ missing. If intentional, please use the following format for each skipped sequence:
(2) INFORMATION FOR SEQ ID NO:X:
(i) SEQUENCE CHARACTERISTICS:(Do not insert any headings under "SEQUENCE CHARACTERISTICS")
(xi) SEQUENCE DESCRIPTION:SEQ ID NO:X:
This sequence is intentionally skipped

Please also adjust the "(iii) NUMBER OF SEQUENCES:" response to include the skipped sequence(s).
- 9 ☐ Skipped Sequences (NEW RULES) Sequence(s) ☐ missing. If intentional, please use the following format for each skipped sequence.
<210> sequence id number
<400> sequence id number
000
- 10 ☐ Use of n's or Xaa's (NEW RULES) Use of n's and/or Xaa's have been detected in the Sequence Listing.
Use of <220> to <223> is MANDATORY if n's or Xaa's are present.
In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.
- 11 ☐ Use of "Artificial" (NEW RULES) Use of "Artificial" only as "<213> Organism" response is incomplete, per 1.823(b) of New Sequence Rules.
Valid response is Artificial Sequence.
- 12 ☐ Use of <220>Feature (NEW RULES) Sequence(s) ☐ are missing the <220>Feature and associated headings.
Use of <220> to <223> is MANDATORY if <213>ORGANISM is "Artificial Sequence" or "Unknown"
Please explain source of genetic material in <220> to <223> section.
(See "Federal Register," 6/01/98, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of new Rules)
- 13 ☐ PatentIn ver. 2.0 "bug" Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing).
Instead, please use "File Manager" or any other means to copy file to floppy disk.

OIPE

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/848,834

DATE: 05/15/2001
TIME: 15:16:16

Input Set : A:\ES.txt
Output Set: N:\CRF3\05152001\I848834.raw

Does Not Comply
Corrected Diskette Needed

3 <110> APPLICANT: Apton Corporation
5 <120> TITLE OF INVENTION: Chimeric Peptide for Use as Immunogen
7 <130> FILE REFERENCE: 1102865-0047
9 <140> CURRENT APPLICATION NUMBER: US/09/848,834
9 <141> CURRENT FILING DATE: 2001-05-04
9 <150> PRIOR APPLICATION NUMBER: 60/202,328
10 <151> PRIOR FILING DATE: 2000-05-05
12 <160> NUMBER OF SEQ ID NOS: 20
14 <170> SOFTWARE: PatentIn version 3.0

pg 1-11

(see circled portion of item 12 on Error summary sheet)
Per 1.823 of Sequence Rules, the only valid (213) responses are: Unknown, Artificial Sequence, or scientific name (genus/species)

ERRORED SEQUENCES

16 <210> SEQ ID NO: 1
17 <211> LENGTH: 10
18 <212> TYPE: PRT
19 <213> ORGANISM: synthetic construct
21 <220> FEATURE:
23 <221> NAME/KEY: MOD_RES
24 <222> LOCATION: (1)..(1)
25 <223> OTHER INFORMATION: Pyroglutamic acid or 5-oxoproline
27 <220> FEATURE:
29 <221> NAME/KEY: MOD_RES
30 <222> LOCATION: (10)..(10)
31 <223> OTHER INFORMATION: Amidated-glycine or glycinamide
33 <400> SEQUENCE: 1

35 Glu His Trp Ser Tyr Gly Leu Arg Pro Gly

E--> 36 1 5 10

38 <210> SEQ ID NO: 2
39 <211> LENGTH: 16
40 <212> TYPE: PRT
41 <213> ORGANISM: synthetic construct
43 <220> FEATURE:
44 <221> NAME/KEY: PEPTIDE
45 <222> LOCATION: (1)..(16)
46 <223> OTHER INFORMATION: Amino acid sequence 829-844 of the Tetanus
47 Toxoid Precursor (Tentoxylisin)
50 <400> SEQUENCE: 2

52 Met Gln Tyr Ile Lys Ala Asn Ser Lys Phe Ile Gly Ile Thr Glu

E--> 53 1 5 10

E--> 54 15

56 <210> SEQ ID NO: 3
57 <211> LENGTH: 20
58 <212> TYPE: PRT
59 <213> ORGANISM: synthetic construct
62 <220> FEATURE:
63 <221> NAME/KEY: PEPTIDE

"Glu" can only represent itself (or a modified version of itself) nothing else

(global errors)

misaligned amino acid numbers

(see item 4 on Error summary sheet)

same error

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/848,834

DATE: 05/15/2001
TIME: 15:16:16

Input Set : A:\ES.txt
Output Set: N:\CRF3\05152001\I848834.raw

Plasmodium?

64 <222> LOCATION: (1)..(20)
65 <223> OTHER INFORMATION: Amino acid sequence 378-398 of the *Plasmodium*
66 falciparum circumsporozoite protein
70 <400> SEQUENCE: 3
72 Asp Glu Lys Lys Ile Ala Lys Met Glu Lys Ala Ser Ser Val Phe Asn
E--> 73 1 5 10
E--> 74 15
76 Val Val Asn Ser
E--> 77 20
79 <210> SEQ ID NO: 4
80 <211> LENGTH: 21
81 <212> TYPE: PRT
82 <213> ORGANISM: synthetic construct
86 <220> FEATURE:
87 <221> NAME/KEY: PEPTIDE
88 <222> LOCATION: (1)..(21)
89 <223> OTHER INFORMATION: Amino acid sequence 947-967 of Tetanus
90 Toxoid Precursor (Tentoxylisin)
94 <400> SEQUENCE: 4
96 Phe Asn Asn Phe Thr Val Ser Phe Trp Leu Arg Val Pro Lys Val Ser
E--> 97 1 5 10
E--> 98 15
100 Ala Ser His Leu Glu
E--> 101 20
115 <210> SEQ ID NO: 6
116 <211> LENGTH: 6
117 <212> TYPE: PRT
118 <213> ORGANISM: synthetic construct
122 <400> SEQUENCE: 6
123 Ser Ser Gly Pro Ser Leu
E--> 124 1 5
126 <210> SEQ ID NO: 7
127 <211> LENGTH: 8
128 <212> TYPE: PRT
129 <213> ORGANISM: synthetic construct
132 <400> SEQUENCE: 7
134 Ser Ser Gly Pro Ser Leu Lys Leu
E--> 135 1 5
137 <210> SEQ ID NO: 8
138 <211> LENGTH: 16
139 <212> TYPE: PRT
140 <213> ORGANISM: synthetic construct
143 <220> FEATURE:
144 <221> NAME/KEY: PEPTIDE
145 <222> LOCATION: (1)..(16)
146 <223> OTHER INFORMATION: Amino acid sequence 288-302 of the measles
147 virus fusion protein, F
151 <400> SEQUENCE: 8
153 Leu Ser Glu Ile Lys Gly Val Ile Val His Arg Leu Glu Gly Val Glu

misaligned

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/848,834

DATE: 05/15/2001
TIME: 15:16:16

Input Set : A:\ES.txt
Output Set: N:\CRF3\05152001\I848834.raw

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E--> 154 1                               5                               10
E--> 155 15
157 <210> SEQ ID NO: 9
158 <211> LENGTH: 31
159 <212> TYPE: PRT
160 <213> ORGANISM: synthetic construct
164 <220> FEATURE:
165 <221> NAME/KEY: MOD_RES
166 <222> LOCATION: (1)..(1)
167 <223> OTHER INFORMATION: Amidated Lysine
170 <220> FEATURE:
171 <221> NAME/KEY: PEPTIDE
172 <222> LOCATION: (1)..(15)
173 <223> OTHER INFORMATION: Peptide corresponds to the amino acid sequences 288-302 of the
174 measles virus fusion protein, F
177 <220> FEATURE:
178 <221> NAME/KEY: PEPTIDE
179 <222> LOCATION: (19)..(22)
180 <223> OTHER INFORMATION: Spacer peptide
183 <220> FEATURE:
184 <221> NAME/KEY: PEPTIDE
185 <222> LOCATION: (23)..(31) delete extra P
186 <223> OTHER INFORMATION: Peptide corresponds to amino acid sequences 2-10 of the human
187 GnRH hormone
190 <220> FEATURE:
191 <221> NAME/KEY: MOD_RES
192 <222> LOCATION: (31)..(31)
193 <223> OTHER INFORMATION: Amidated glycine or glycinamide
196 <400> SEQUENCE: 9
198 Lys Leu Leu Ser Glu Ile Lys Gly Val Ile Val His Arg Leu Glu Gly
E--> 199 1                               5                               10
E--> 200 15
202 Val Glu Gly Pro Ser Leu His Trp Ser Tyr Gly Leu Arg Pro Gly
E--> 203                               20                               25
E--> 204 30
206 <210> SEQ ID NO: 10
207 <211> LENGTH: 34
208 <212> TYPE: PRT
209 <213> ORGANISM: synthetic construct
212 <220> FEATURE:
213 <221> NAME/KEY: MOD_RES
214 <222> LOCATION: (1)..(1)
215 <223> OTHER INFORMATION: Amidated phenylalanine
217 <220> FEATURE:
218 <221> NAME/KEY: PEPTIDE
219 <222> LOCATION: (1)..(21)
220 <223> OTHER INFORMATION: Amino acids 947-967 of the Tetanus Toxoid Precursor
221 (Tentoxylisin)
223 <220> FEATURE:

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RAW SEQUENCE LISTING DATE: 05/15/2001
 PATENT APPLICATION: US/09/848,834 TIME: 15:16:16

Input Set : A:\ES.txt
 Output Set: N:\CRF3\05152001\I848834.raw

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E--> 297                20                25
299 <210> SEQ ID NO: 12
300 <211> LENGTH: 33
301 <212> TYPE: PRT
302 <213> ORGANISM: synthetic construct
305 <220> FEATURE:
306 <221> NAME/KEY: MOD_RES
307 <222> LOCATION: (1)..(1)
308 <223> OTHER INFORMATION: Amidated aspartic acid
311 <220> FEATURE:
312 <221> NAME/KEY: MOD_RES
313 <222> LOCATION: (33)..(33)
314 <223> OTHER INFORMATION: Amidated glycine or glycinamide
317 <220> FEATURE:
318 <221> NAME/KEY: PEPTIDE
319 <222> LOCATION: (1)..(20)
320 <223> OTHER INFORMATION: Amino acid sequence 378-398 of the Malaria circumsporozoite
321      (CSP) protein
324 <220> FEATURE:
325 <221> NAME/KEY: PEPTIDE
326 <222> LOCATION: (21)..(24)
327 <223> OTHER INFORMATION: Spacer peptide
330 <220> FEATURE:
331 <221> NAME/KEY: PEPTIDE
332 <222> LOCATION: (25)..(33)
333 <223> OTHER INFORMATION: Amino acid sequence 2-10 of the human GnRH hormone
336 <400> SEQUENCE: 12
338 Asp Glu Lys Lys Ile Ala Lys Met Glu Lys Ala Ser Ser Val Phe Asn
E--> 339 1                5                10
E--> 340 15
342 Val Val Asn Ser Gly Pro Ser Leu His Trp Ser Tyr Gly Leu Arg Pro
E--> 343                20                25
E--> 344 30
346 Gly
349 <210> SEQ ID NO: 13
350 <211> LENGTH: 34
351 <212> TYPE: PRT
352 <213> ORGANISM: synthetic construct
355 <220> FEATURE:
356 <221> NAME/KEY: PEPTIDE
357 <222> LOCATION: (1)..(10)
358 <223> OTHER INFORMATION: Amino acid sequence 1-10 of the human GnRH hormone
361 <220> FEATURE:
362 <221> NAME/KEY: PEPTIDE
363 <222> LOCATION: (11)..(18)
364 <223> OTHER INFORMATION: Spacer peptide
367 <220> FEATURE:
368 <221> NAME/KEY: PEPTIDE
369 <222> LOCATION: (19)..(34)

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RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/848,834

DATE: 05/15/2001
TIME: 15:16:16

Input Set : A:\ES.txt
Output Set: N:\CRF3\05152001\I848834.raw

```

370 <223> OTHER INFORMATION: Amino acid sequence 288-302 of the Measles
371      virus fusion protein, F
374 <220> FEATURE:
375 <221> NAME/KEY: MOD_RES
376 <222> LOCATION: (1)..(1)
377 <223> OTHER INFORMATION: Pyro-glutamic acid or 5-oxoproline
380 <400> SEQUENCE: 13
382 Glu His Trp Ser Tyr Gly Leu Arg Pro Gly Ser Ser Gly Pro Ser Leu
E--> 383 1          5          10
E--> 384 15
386 Lys Leu Leu Ser Glu Ile Lys Gly Val Ile Val His Arg Leu Glu Gly
E--> 387          20          25
E--> 388 30
390 Val Glu
393 <210> SEQ ID NO: 14
394 <211> LENGTH: 37
395 <212> TYPE: PRT
396 <213> ORGANISM: synthetic construct
399 <220> FEATURE:
400 <221> NAME/KEY: MOD_RES
401 <222> LOCATION: (1)..(1)
402 <223> OTHER INFORMATION: Pyroglutamic acid or 5-oxoproline
405 <220> FEATURE:
406 <221> NAME/KEY: PEPTIDE
407 <222> LOCATION: (1)..(10)
408 <223> OTHER INFORMATION: Amino acid sequence 1-10 of the human GnRH hormone
411 <220> FEATURE:
412 <221> NAME/KEY: PEPTIDE
413 <222> LOCATION: (11)..(16)
414 <223> OTHER INFORMATION: Spacer peptide
417 <220> FEATURE:
418 <221> NAME/KEY: PEPTIDE
419 <222> LOCATION: (17)..(37)
420 <223> OTHER INFORMATION: Amino acid sequence 947-967 of the Tetanus toxoid precursor
421      (Tentoxylisin)
424 <400> SEQUENCE: 14
426 Glu His Trp Ser Tyr Gly Leu Arg Pro Gly Ser Ser Gly Pro Ser Leu
E--> 427 1          5          10
E--> 428 15
430 Phe Asn Asn Phe Thr Val Ser Phe Trp Leu Arg Val Pro Lys Val Ser
E--> 431          20          25
E--> 432 30
434 Ala Ser His Leu Glu
E--> 435          35
438 <210> SEQ ID NO: 15
439 <211> LENGTH: 31
440 <212> TYPE: PRT
441 <213> ORGANISM: synthetic construct
444 <220> FEATURE:

```

*Glu can only represent itself or
a modified version.*

RAW SEQUENCE LISTING DATE: 05/15/2001
 PATENT APPLICATION: US/09/848,834 TIME: 15:16:16

Input Set : A:\ES.txt
 Output Set: N:\CRF3\05152001\I848834.raw

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445 <221> NAME/KEY: MOD_RES
446 <222> LOCATION: (1)..(1)
447 <223> OTHER INFORMATION: Pyroglutamic acid or 5-oxoproline
450 <220> FEATURE:
451 <221> NAME/KEY: PEPTIDE
452 <222> LOCATION: (1)..(10)
453 <223> OTHER INFORMATION: Amino acid sequence 1-10 of the human GnRH hormone
456 <220> FEATURE:
457 <221> NAME/KEY: PEPTIDE
458 <222> LOCATION: (11)..(16)
459 <223> OTHER INFORMATION: Spacer peptide
461 <220> FEATURE:
462 <221> NAME/KEY: PEPTIDE
463 <222> LOCATION: (17)..(31)
464 <223> OTHER INFORMATION: Amino acid sequence 830-844 of the Tetanus toxoid precursor
465 (Tentoxylisin)
467 <220> SEQUENCE: 15
469 Glu His Trp Ser Tyr Gly Leu Arg Pro Gly Ser Ser Gly Pro Ser Leu
E--> 470 1 5 10
E--> 471 15
473 Gln Tyr Ile Lys Ala Asn Ser Lys Phe Ile Gly Ile Thr Glu Leu
E--> 474 20 25 30
476 <210> SEQ ID NO: 16
477 <211> LENGTH: 36
478 <212> TYPE: PRT
479 <213> ORGANISM: synthetic construct
482 <220> FEATURE:
483 <221> NAME/KEY: MOD_RES
484 <222> LOCATION: (1)..(1)
485 <223> OTHER INFORMATION: Pyroglutamic acid or 5-oxoproline
489 <220> FEATURE:
490 <221> NAME/KEY: PEPTIDE
491 <222> LOCATION: (1)..(10)
492 <223> OTHER INFORMATION: Amino acid sequence 1-10 of the human GnRH hormone
495 <220> FEATURE:
496 <221> NAME/KEY: PEPTIDE
497 <222> LOCATION: (11)..(16)
498 <223> OTHER INFORMATION: Spacer peptide
501 <220> FEATURE:
502 <221> NAME/KEY: PEPTIDE
503 <222> LOCATION: (17)..(36)
504 <223> OTHER INFORMATION: Amino acid sequence 378-398 of the Malaria
505 (Plasmodium falciparum) circumsporozoite
506 (CSP) protein
511 <220> SEQUENCE: 16
513 Glu His Trp Ser Tyr Gly Leu Arg Pro Gly Ser Ser Gly Pro Ser Leu
E--> 514 1 5 10
E--> 515 15
517 Asp Glu Lys Lys Ile Ala Lys Met Glu Lys Ala Ser Ser Val Phe Asn

```

RAW SEQUENCE LISTING
 PATENT APPLICATION: US/09/848,834

DATE: 05/15/2001
 TIME: 15:16:16

Input Set : A:\ES.txt

Output Set: N:\CRF3\05152001\I848834.raw

```

E--> 518                               20                               25
E--> 519 30
521 Val Val Asn Ser
E--> 522                               35
524 <210> SEQ ID NO: 17
525 <211> LENGTH: 47
526 <212> TYPE: PRT
527 <213> ORGANISM: synthetic construct
531 <220> FEATURE:
532 <221> NAME/KEY: MOD_RES
533 <222> LOCATION: (1)..(1)
534 <223> OTHER INFORMATION: Pyro-glutamic acid or 5-oxoproline
537 <220> FEATURE:
538 <221> NAME/KEY: PEPTIDE
539 <222> LOCATION: (1)..(10)
540 <223> OTHER INFORMATION: Amino acid sequence 1-10 of the human GnRH hormone
543 <220> FEATURE:
544 <221> NAME/KEY: PEPTIDE
545 <222> LOCATION: (11)..(18)
546 <223> OTHER INFORMATION: Spacer peptide
549 <220> FEATURE:
550 <221> NAME/KEY: PEPTIDE
551 <222> LOCATION: (19)..(34)
552 <223> OTHER INFORMATION: Amino acid sequence 288-302 of the Measles
553 virus fusion protein, F
557 <220> FEATURE:
558 <221> NAME/KEY: PEPTIDE
559 <222> LOCATION: (35)..(38)
560 <223> OTHER INFORMATION: Spacer peptide
564 <220> FEATURE:
565 <221> NAME/KEY: PEPTIDE
566 <222> LOCATION: (39)..(47)
567 <223> OTHER INFORMATION: Amino acid sequence 2-10 of the human GnRH hormone
570 <400> SEQUENCE: 17
572 Glu His Trp Ser Tyr Gly Leu Arg Pro Gly Ser Ser Gly Pro Ser Leu
E--> 573 1                               5                               10
E--> 574 15
576 Lys Leu Leu Ser Glu Ile Lys Gly Val Ile Val His Arg Leu Glu Gly
E--> 577                               20                               25                               30
579 Val Glu Gly Pro Ser Leu His Trp Ser Tyr Gly Leu Arg Pro Gly
E--> 580                               35                               40                               45
582 <210> SEQ ID NO: 18
584 <211> LENGTH: 50
586 <212> TYPE: PRT
588 <213> ORGANISM: synthetic construct
591 <220> FEATURE:
592 <221> NAME/KEY: MOD_RES
593 <222> LOCATION: (1)..(1)
594 <223> OTHER INFORMATION: Pyroglutamic acid or 5-oxoproline

```

RAW SEQUENCE LISTING DATE: 05/15/2001
 PATENT APPLICATION: US/09/848,834 TIME: 15:16:16

Input Set : A:\ES.txt
 Output Set: N:\CRF3\05152001\I848834.raw

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597 <220> FEATURE:
598 <221> NAME/KEY: PEPTIDE
599 <222> LOCATION: (1)..(10)
600 <223> OTHER INFORMATION: Amino acid sequence 1-10 of the human GnRH hormone
603 <220> FEATURE:
604 <221> NAME/KEY: PEPTIDE
605 <222> LOCATION: (11)..(16)
606 <223> OTHER INFORMATION: Spacer peptide
609 <220> FEATURE:
610 <221> NAME/KEY: PEPTIDE
611 <222> LOCATION: (17)..(37)
612 <223> OTHER INFORMATION: Amino acid sequence 947-967 of the Tetanus Toxoid Precursor
613      (Tentoxylisin)
616 <220> FEATURE:
617 <221> NAME/KEY: PEPTIDE
618 <222> LOCATION: (38)..(41)
619 <223> OTHER INFORMATION: Spacer peptide
622 <220> FEATURE:
623 <221> NAME/KEY: PEPTIDE
624 <222> LOCATION: (42)..(50)
625 <223> OTHER INFORMATION: Amino acid sequence 2-10 of the human GnRH hormone
628 <220> FEATURE:
629 <221> NAME/KEY: MOD_RES
630 <222> LOCATION: (50)..(50)
631 <223> OTHER INFORMATION: Amidated glycine or glycinamide
634 <220> SEQUENCE: 18
636  Glu His Trp Ser Tyr Gly Leu Arg Pro Gly Ser Ser Gly Pro Ser Leu
E--> 637  1                               5                               10
E--> 638 15
640  Phe Asn Asn Phe Thr Val Ser Phe Trp Leu Arg Val Pro Lys Val Ser
E--> 641                               20                               25
E--> 642 30
644  Ala Ser His Leu Glu Gly Pro Ser Leu His Trp Ser Tyr Gly Leu Arg
E--> 645                               35                               40                               45
647  Pro Gly
E--> 648                               50
650 <210> SEQ ID NO: 19
651 <211> LENGTH: 46
652 <212> TYPE: PRT
653 <213> ORGANISM: synthetic construct
656 <220> FEATURE:
657 <221> NAME/KEY: MOD_RES
658 <222> LOCATION: (1)..(1)
659 <223> OTHER INFORMATION: Pyroglutamic acid or 5-oxoproline
662 <220> FEATURE:
663 <221> NAME/KEY: MOD_RES
664 <222> LOCATION: (46)..(46)
665 <223> OTHER INFORMATION: Amidated glycine or glycinamide
668 <220> FEATURE:

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RAW SEQUENCE LISTING

DATE: 05/15/2001

PATENT APPLICATION: US/09/848,834

TIME: 15:16:16

Input Set : A:\ES.txt

Output Set: N:\CRF3\05152001\I848834.raw

669 <221> NAME/KEY: PEPTIDE
 670 <222> LOCATION: (1)..(10)
 671 <223> OTHER INFORMATION: Amino acid sequence 1-10 of the human GnRH hormone
 674 <220> FEATURE:
 675 <221> NAME/KEY: PEPTIDE
 676 <222> LOCATION: (11)..(16)
 677 <223> OTHER INFORMATION: Spacer peptide
 680 <220> FEATURE:
 681 <221> NAME/KEY: PEPTIDE
 682 <222> LOCATION: (17)..(31)
 683 <223> OTHER INFORMATION: Amino acid sequence 830-844 of the Tetanus Toxoid Precursor
 684 (Tentoxylisin)
 687 <220> FEATURE:
 688 <221> NAME/KEY: PEPTIDE
 689 <222> LOCATION: (32)..(37)
 690 <223> OTHER INFORMATION: Spacer peptide
 694 <220> FEATURE:
 695 <221> NAME/KEY: PEPTIDE
 696 <222> LOCATION: (38)..(46)
 697 <223> OTHER INFORMATION: Amino acid sequence 2-10 of the human GnRH hormone
 701 <400> SEQUENCE: 19
 703 Glu His Trp Ser Tyr Gly Leu Arg Pro Gly Ser Ser Gly Pro Ser Leu
 E--> 704 1 5 10
 E--> 705 15
 707 Gln Tyr Ile Lys Ala Asn Ser Lys Phe Ile Gly Ile Thr Glu Leu Ser
 E--> 708 20 25 30
 710 Ser Gly Pro Ser Leu His Trp Ser Tyr Gly Leu Arg Pro Gly
 E--> 711 35 40 45
 713 <210> SEQ ID NO: 20
 714 <211> LENGTH: 51
 715 <212> TYPE: PRT
 716 <213> ORGANISM: synthetic construct
 719 <220> FEATURE:
 720 <221> NAME/KEY: MOD_RES
 721 <222> LOCATION: (1)..(1)
 722 <223> OTHER INFORMATION: Pyroglutamic acid or 5-oxoproline
 724 <220> FEATURE:
 725 <221> NAME/KEY: MOD_RES
 726 <222> LOCATION: (51)..(51)
 727 <223> OTHER INFORMATION: Amidated glycine or glycineamide
 730 <220> FEATURE:
 731 <221> NAME/KEY: PEPTIDE
 732 <222> LOCATION: (1)..(10)
 733 <223> OTHER INFORMATION: Amino acid sequence 1-10 of the GnRH hormone
 736 <220> FEATURE:
 737 <221> NAME/KEY: PEPTIDE
 738 <222> LOCATION: (11)..(16)
 739 <223> OTHER INFORMATION: Spacer peptide
 741 <220> FEATURE:

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/848,834

DATE: 05/15/2001
TIME: 15:16:16

Input Set : A:\ES.txt
Output Set: N:\CRF3\05152001\I848834.raw

742 <221> NAME/KEY: PEPTIDE
743 <222> LOCATION: (17)..(36)
744 <223> OTHER INFORMATION: Amino acid sequence 378-398 of the Malaria circumsporozoite
745 (CSP) protein
748 <220> FEATURE:
749 <221> NAME/KEY: PEPTIDE
750 <222> LOCATION: (37)..(42)
751 <223> OTHER INFORMATION: Spacer peptide
754 <220> FEATURE:
755 <221> NAME/KEY: PEPTIDE
756 <222> LOCATION: (43)..(51)
757 <223> OTHER INFORMATION: Amino acid sequence 2-10 of the human GnRH hormone
761 <400> SEQUENCE: 20
763 Glu His Trp Ser Tyr Gly Leu Arg Pro Gly Ser Ser Gly Pro Ser Leu
E--> 764 1 5 10
E--> 765 15
767 Asp Glu Lys Lys Ile Ala Lys Met Glu Lys Ala Ser Ser Val Phe Asn
E--> 768 20 25
E--> 769 30
771 Val Val Asn Ser Ser Ser Gly Pro Ser Leu His Trp Ser Tyr Gly Leu
E--> 772 35 40 45
774 Arg Pro Gly
E--> 775 50

VERIFICATION SUMMARY

DATE: 05/15/2001

PATENT APPLICATION: US/09/848,834

TIME: 15:16:17

Input Set : A:\ES.txt

Output Set: N:\CRF3\05152001\I848834.raw

L:9 M:270 C: Current Application Number differs, Replaced Current Application No
L:9 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:36 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:1
L:53 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:2
M:332 Repeated in SeqNo=2
L:73 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:3
M:332 Repeated in SeqNo=3
L:97 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:4
M:332 Repeated in SeqNo=4
L:124 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:6
L:135 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:7
L:154 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:8
M:332 Repeated in SeqNo=8
L:199 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:9
M:332 Repeated in SeqNo=9
L:244 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:10
M:332 Repeated in SeqNo=10
L:293 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:11
M:332 Repeated in SeqNo=11
L:339 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:12
M:332 Repeated in SeqNo=12
L:383 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:13
M:332 Repeated in SeqNo=13
L:427 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:14
M:332 Repeated in SeqNo=14
L:470 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:15
M:332 Repeated in SeqNo=15
L:514 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:16
M:332 Repeated in SeqNo=16
L:573 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:17
M:332 Repeated in SeqNo=17
L:637 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:18
M:332 Repeated in SeqNo=18
L:704 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:19
M:332 Repeated in SeqNo=19
L:764 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:20
M:332 Repeated in SeqNo=20